

Heller Ehrman White & McAuliffe LLP
Attorney Docket No. 38005-0121

U.S. Serial No. 09/288,719
Roland KONTERMANN *et al.*

Amendments

In the Claims:

Please cancel claim 2 without prejudice or disclaimer.

Please amend the remaining claims as follows:

1. (Previously Amended) A single-chain multiple antigen-binding molecule comprising:
 - (a) a variable domain of a heavy chain of an immunoglobulin (VH) with a first specificity (A), or functional parts thereof, wherein the first specificity (A) is directed against the cell membrane of a target cell,
 - (b) a variable domain of a light chain of an immunoglobulin (VL) with a second specificity (B), or functional parts thereof, wherein the second specificity (B) is directed against a vector selected from the group consisting of a nucleic acid and a viral vector selected from the group consisting of an AdV, AAV, Vaccinia, RSV, HSV, influenza, and lentivirus,
 - (c) a variable domain of a heavy chain of an immunoglobulin (VH) with the specificity (B), or functional parts thereof, and
 - (d) a variable domain of a light chain of an immunoglobulin (VL) with the specificity (A), or functional parts thereof,wherein the VH and VL domains are connected in the form of a VH-VL construct or VL-VH construct, and wherein the two VH-VL constructs are connected via a peptide (P).
2. (Cancelled)
3. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 1, which consists of two VH-VL constructs.
4. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 1, wherein the VH-VL constructs are connected via domains with the same specificity.

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5. (Canceled)
6. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 1, wherein the VH and VL domains are connected via a peptide linker (L) in the form of a VH-L-VL construct or VL-L-VH construct.
7. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 6, wherein the linker (L) is about 1-20 amino acids long.
8. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 7, wherein the linker (L) is about 1-5 amino acids long.
9. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 8, wherein the linker (L) comprises the amino acid sequence GGGGS.
10. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 1, wherein the peptide (P) is about 12-40 amino acids long.
11. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 10, wherein the peptide (P) is about 12-20 amino acids long.
12. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 11, wherein the peptide (P) is 14 amino acids long.
13. (Previously Amended) A single-chain multiple antigen-binding molecule as claimed in claim 10, wherein the peptide (P) comprises the amino acid sequence GGGSGGGRASGGGS (SEQ ID NO: 2) or GGGSGGGRASGGGS (SEQ ID NO: 3).
14. (Previously Amended) A single-chain multiple antigen-binding molecule as claimed in claim 13, wherein the peptide (P) has an amino acid sequence selected from the group consisting of GGGSGGGRASGGGS (SEQ ID NO: 2) and GGGSGGGRASGGGS (SEQ ID NO: 3).

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15. (Previously Amended) A single-chain multiple antigen-binding molecule as claimed in claim 1, wherein said molecule further comprises an effector (E) which effector (E) is a prodrug activating enzyme.
16. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 15, wherein the effector (E) is linked to said molecule via a connector (B).
17. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 16, wherein the connector (B) comprises a protease cleavage sequence.
18. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 17, wherein the protease cleavage sequence is selected from the group consisting of PSA, cathepsin, plasminogen and plasminogen activator cleavage sequence.
- 19-22. (Canceled)
23. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 1, wherein the peptide (P) further comprises a fusogenic peptide.
- 24-27. (Canceled)
28. (Currently Amended) A single-chain multiple antigen-binding molecule as claimed in claim [27] 1, **wherein** the cell membrane is selected from the group consisting of cell membrane of lymphocytes, macrophages, monocytes, granulocytes, hematopoietic cells, endothelial cells, smooth muscle cells, striped muscle cells, epithelial cells, liver cells, kidney cells, glia cells, cells of the supporting tissue, tumor cells and leukemia cells.
29. (Original) A single-chain multiple antigen-binding molecule as claimed in claim 1, wherein the first specificity (A) is directed against a protein.
- 30-86 (Canceled)